

## Ergonomics demonstration project: GLY Construction

### Need

Construction trades represent some of the most hazardous jobs for the development of musculoskeletal injuries in Washington State. People directly working for the general contractor or subcontractors are often performing labor or carpentry work that may have the potential for hazard zone risk factors. This project provided an opportunity to work with the carpentry and concrete work trades, both of which are in the top 12 industry classes for musculoskeletal injuries in the state. The information gained from this project has the potential to help reduce the likelihood of injury for thousands of workers each year in these trades.

### Goals

The goals of the demonstration project are to:

- Identify likely hazard zone risk factors at a specific job-site for carpenters, laborers and re-bar workers with possible solutions for mitigation.
- Test for and identify potential ergonomic hazards and risk mitigation.
- Incorporate the information gained into a flexible checklist for identification and documentation of expected hazard zone risk factors and controls by tasks.

### Project design

The final product will be developed through weekly identification of hazards and solutions at the safety toolbox meetings and at the foremen meetings. These solutions will be implemented as feasible on a weekly basis to test their effectiveness. Possible ergonomic hazards identified on Monday will be evaluated during the week by ergonomists and GLY representatives. The following Monday, findings and possible solutions for hazards from the previous week will be discussed. The focus will be on engineering controls and low-cost, short-term solutions. However, the purchase of power tools such as a re-bar tying tool and other equipment is expected to test feasibility of specific tool use on-site. Risk factor assessment using work sampling will be conducted for carpenter and laborer activities jointly with GLY and Department of Labor and Industries ergonomists. This will also demonstrate ergonomic risk factor hazard analysis by the on-site GLY safety specialist.

## Timetable

June 2001 .....Begin initial discussions  
August 2001 .....Initiate weekly meetings and hazard analysis  
March 2002.....Complete hazard/solution identification and implementation  
June 2002.....Complete final report and documentation

## Results

- A checklist for conducting site-specific ergonomic hazard analysis for carpenters, laborers and re-bar workers.
- A report documenting the process, hazard analysis results, and identified and implemented controls.